

A. **Rules of Solubility:**

1. All nitrates, chlorates and acetates are soluble.
2. All chlorides are soluble EXCEPT AgCl, Hg<sub>2</sub>Cl<sub>2</sub>, and PbCl<sub>2</sub>.
3. Most sulfates are soluble; notable exceptions include SrSO<sub>4</sub>, BaSO<sub>4</sub> and PbSO<sub>4</sub>.
4. All carbonates are insoluble except those of Group I and ammonium, NH<sub>4</sub><sup>+</sup>.
5. All hydroxides are insoluble except those of the Group I, and the following Group II- Sr(OH)<sub>2</sub>, Ba(OH)<sub>2</sub>, Ca(OH)<sub>2</sub> (slightly soluble).
6. All sulfides except those of Group I, Group II, and ammonium, NH<sub>4</sub><sup>+</sup> are insoluble.

B **ACTIVITY SERIES**

Activity decreases going down each column.

Metals [Partial List]

Lithium  
Potassium  
Calcium  
Sodium  
Magnesium  
Aluminum  
Zinc  
Chromium  
Iron  
Nickel  
Tin  
Lead  
**Hydrogen**  
Copper  
Mercury  
Silver  
Gold

Nonmetals [Halogens only]

Fluorine  
Chlorine  
Bromine  
Iodine